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1922.

ACADEMY
NAT. SCI.
PHILA.
MS. 586

Field diary.

ACADEMY
NAT. SCI.
PHILA.
MS. 586

Aug.

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Oct.

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1922.

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Aug. 4. Left Phila. in "Pennsylvania Limited" at 1.16 P.M.

Aug. 5 Arrived in Chicago 10.50 A.M., nearly two hrs. late from freight wreck in Ohio. Left at 8.00 P.M. in "Los Angeles Limited."

Aug. 6. Arrived at Omaha 3.30 late, due to engine trouble on North-western. Union Pacific made up sufficient time to get me in Cheyenne, Wyoming, only shortly after midnight.

Aug. 7. Cheyenne, Wyoming.

After a comfortable sleep at the "Plains Hotel" I had a good breakfast and secured a Laramie Ford and drove. We went off into the west, up the Sherman grade to a point about two miles east of Granite Canyon, where I worked for several hours until a storm drove me in. Secured a fair and interesting representation. Left Cheyenne at 5.45 P.M. for Laramie, arriving 7.30. Put up material and turned in. Could not get in hotel, but got a good, though inside, room. 13-striped spermatophiles. Numerous

Taken 1 #6.

Laramie Mts, looking W. from near Granite Canyon.

16 stop - 1/25 sec. overcast.

in vicinity of Cheyenne. Ammodendron frankii var. commutatum near Cheyenne.

Horned Lark. Numerous betw. Cheyenne & Granite Canyon.

Aug. 8, 1922. Laramie, Laramie Mts. to Medicine Bow, Wyoming.

Film #1 Not being able to get a hotel room, exp. 2. I managed to get a good double room at a clean rooming house, looking S. and doubled up in it with a Canadian from 8833 salesman, who was a gentleman just on Laramie and a man of culture. Had a good Mt. Horned night's sleep and after a good Laramie breakfast I hired a machine & region (in distance). I was unable to get a Ford 9.30 AM. and had to use an Oldsmobile. 16 stop 1/25 exp. 3. 25¢ a mile running, \$1 an hour. Cost from standing. In the morning we ran same pt. up along the Lincoln Highway (Crow Creek to the highest point reached Hill) 11.10 by it on the Laramie Mts., which AM. is about 14 miles from Laramie. 1/25-16 stop. Here at Crow Creek Hill the road reaches 8833 feet, the hill 8877 feet. Here I worked for two hours, in grass, sage, open pine woods and aspen thickets. The view to the south showed the mountains of the Laramie Peak country, while to the

cut, across a deep canyon, were the ragged knobs and crests of the more eastern spur of the Rarannies, which in the gov. topographic is called the Sherman Mts. After lunch we took the machine and went off to the west about eight miles, working in two locations, one on the slopes of the very large depression known as "The Big Hollow", the other, which was numbered only after considerable search, an area of rabbit weed, some ~~mesquite~~ mesquite weed, alfalfa and wild, alkali areas with a little salt bush and one section of sweet grasses. The first district was extremely disappointing, and turned around itself into a hunt for sections not closely grazed. The second section examined was the only place we could find. Getting back into Rarannie about four and at the station for a five-fifty-five train, it was 6.40 before I was actually on board en route for Medicine Bow. I arrived there at 8.10 P.M. and was soon comfortably installed at "The Virginian". The getting to the

Hotel, however, was not comfortable, as I had no help and was in the last car of a freight car train.

(Experience with convict.)

Maggie. In canyon of Laramie - one. Rock Bunting. A number near Laramie. A number of bunches about Laramie - on way to Crow Creek Hill.

Burns' Blackbird. Numerous about ranches near Laramie. Marsh Hawk. One quartered two in ground where I worked last.

Spermophiles - numerous.

Prairie dogs - several on range.

Aug. 9, 1922. Medicine Bow, Carbon Co., Wyoming. to Rawlins, Carbon Co., Wyo.

Had my stuff all put up by 10.30 P.M. and then had a glorious sleep until 6.50 A.M. As the past two nights I had either but part of a full night's rest or slept in an inside room with little air, it was a real treat to have all the cool breeze I needed. The hotel is good and clean, food simple but wholesome. After breakfast I

walked off to the S. E. - E. of town,
 over rolling plains, bare or with
 sage - rabbit weed, with silt or
 pebbly slopes. I had good luck and
 got quite a little of interest, including
 intermediate material of the
 fr. Plains and fr. Basin races
 of Aerchoreutes carlinianus and
Perotomema haydenii. The view
 to the north showed the Freycout
 Hills, while to the southwest
 Elk Mountain, the north end
 of the Medicine Bow range
 dominated the landscape.
 I spent four hours in the field
 and worked over quite a few
 miles of country. After a good
 lunch I packed material,
 much requiring stuffing,
 until nearly train time.
 My train left Medicine Bow at
 4.30 and arrived at Rawlins at
 6.20 P.M. About Hanna no mines
 seemed to be producing coal except
 one which was running out
 "slack" or powdered coal. At
 Rawlins the "Ferris" was short of
 room, but I got a double one
 with a St. Louis drummer and
 was comfortably fixed up.

Jack Rabbit - Betw. Medicine Bow
and Hanna.

Horned Lark. Sw. at Medicine Bow.
Magpie. One near Hanna.

Aug. 10, 1922. Rawlins to Wamsutter, to Rock
Springs, Wyoming.

Film 1. I was up at 5.15 AM. after a night

#4. Acidophus which for some unknown reason
had at had yielded but little sleep. The
Wamsutter, morning was overcast with threatening
growing with masses of gray clouds, coming next
black sage of the sky. The train was an

(sample taken) hour late and it was 7.15 instead
1.15 PM. of 6.15 when we left Rawlins. Betw.

16 stop 1/25 Wamsutter and Wamsutter we
#5: passed through some hail and

Wamsutter, this turned to rain, which we
found falling steadily when we stopped

conditions at Wamsutter. It kept me
looking E. station bound until after nine

(dark patches
sage) 0'clock, in fact nearly ten
0'clock, when I managed to locate

4.40 PM. the little hotel and transport
1/25-16 stop my bags there. The sun did not

come out until nearly noon, but
by the time I had gotten some

lunch in a little eating house
things had completely dried off.

and the salt flats showed no

evidence of the dressing they had just received. I walked off to the east and S. E. of the little town, in rolling plains, with scattered clumps and patches of black sage, Artemisia, bush & other species, with sun-cracked silt areas on the level and much of the gentle slopes with bunch grass and other herbaceous growth. I walked from 1-5 PM and the results were very meager, in fact discouragingly so. The fact that I was getting Hypoxys of Drum. argyræus was one of the few fair finds.

I left Wamsutter at 8.05 PM and arrived at Rock Springs about 10.30. It was a beautiful night and the sunset over the Red Desert country was something to be remembered. I was very comfortably installed in the Park Hotel.

Cott. tail Rabbit. Near Rawlins & at Wamsutter.

Aug. 11, 1922. Rocks Springs, Wyoming.
 After a good breakfast I set out
 Film 1 on foot to the north, which seemed
 exp. # 6 to me the most promising direction.
 Surface This led up the valley of Killpecker
 conditions Creek. There I struck into the
 in hills hills to the east and worked all
 at Rock morning ~~from~~ between 6250 and
 exp. # 6 6500 feet. The hills are largely
 of ~~heterotermans~~ weathered sandstone, with
 9.15 AM. some hard ledges and points,
 1/25-btw. but the surface is most debris
 16-22: of the basic rock, with scattered
 Film 2 sage, some low cactuses, Atriplex
 exp. # 1 and ? Chenopodium. The results
 Looking N. were fairly good and after lunch
 up valley I returned to work some flats of
 of Killpecker taller sage in the flood plain on
 Creek from the west side of Killpecker Creek.
 hills N. of This proceeded fairly well until
 Rock exp. a rain storm stopped work for
 10.05 AM. the day. The town is very largely
 1/25-16 stop. foreign, coal miners, and they
 are everywhere in evidence. In the
 evening I had a talk with a striking
 miner, an American, and it was
 interesting to get his viewpoint,
 which clearly showed how little
 cohesion there is between the
 native & foreign coal miners.

Rock Wren - One in hills - another
one dead in same place.
Morning blm. Several in hills.

Aug. 12, 1922. Rock Springs to Granger, Wyoming.
After breakfast I found the
9.42 AM. train would be somewhat
late, which lateness by easy
stages reached to 2 PM. At
no time was enough leeway
given to warrant unpacking
and going out for some hours,
as the train I wanted was
the only one which was at all
practicable for me to use to
Granger. Eventually I reached
Granger at 4 P.M. instead
of shortly after 11. I was
delighted to find a livable
hotel, which made unnecessary
an evening's run back to Green
River to sleep. I went out for
nearly 4 ~~100~~ hours, down along
the Black Fork of the Green River
and then out on the sage flats,
but found almost nothing, and
the wind made work almost
impossible.
Morning blm. One at Granger.
Night Hawk. One on sage flat
at Granger.

Aug. 13, 1922. Granger, Wyoming, to Evanston,
Wyoming.

Last evening we had a terrific thunder storm, with a wind which the hotel-keeper said was the worst they had had since 1916. This morning it was still storming off to the north and northeast, and continued to do so until I left for Evanston at three P.M. After breakfast I worked off to the north over the sage flats and up on the bench hill to the third rise. Work was slow, the wind handicapped me and a torn net made me lose some things, but I secured many species new and did fair for ~~an~~ an almost exclusively sage brush locality. The train I was to take to Evanston was scheduled to leave at 11.59 A.M., but it was three P.M. before it got off. East bound trains were also off schedule - in fact one from Los Angeles was yesterday's train. I reached Evanston at five o'clock, and was soon installed at the Hotel Evanston in a comfortable room with

bath, which I have not been able to enjoy since leaving home. In the evening I wrote letters and went to the movies, as I had packed my catch before leaving franger. I had one heavy thunder storm at 6.15 and another one at nine. I might add that at 12.30 in franger we had a hail storm.

Cotton-tail Rabbit. Two in cage at franger.
 Brewer's Blackbird. Flocks at Carter and quite a few at franger.
 Magpie. - Two at Knight in Bear River Valley, about 8 miles east (R.R.) of Evanston.

Aug. 14, 1922. Evanston, Wyoming and vicinity.
 Film 2 After a good breakfast, preceded
 Exp. no. 2 by a good bath, I struck off to the
 Looking N. from south of town and spent a
 hill S. of Evan- profitable morning working in
 ston. Medicine the sage & other color of the hills
 Butte in dist. which roll off to the south. I
 9.55 AM. 16 stop worked up to an extensive bench
 1/25 at 7100 feet, which ran off a
 Exp. no. 3. considerable distance to the south.
 In Bear River
 beside E. of
 Evanston
 approx. 7500 feet. After lunch I got a machine
 2 PM. 1/25 16 stop.

and dinner and went up to the point where the road crosses the Bear River bluffs to the east of Ernest. At a locality near there, where junipers were numerous, and at an elevation of 7400-7700 feet, I worked for some time, on steep slopes and the valley floor, with but little success. We ran in near town and there I worked in the meadow lands of Bear River, ~~but~~ with some but not startling success. It took considerable time to put up the days catch, which in all was a fairly interesting one.

Brown's Blackbird - Numerous about Ernest.
 Blackbird; could not see under surface.
 Numerous about Ernest.

Arkansas Kingbird. One in morning.

Aug. 15. Ernest, Wyoming to Ogden, 1922. + Ogden Canyon, Utah.
 Train II. I was called at 5.00 AM. on the no. 4. report of my train at 5.45, but looking it was 6.30 when it materialized. From Ogden I arrived in Ogden about 9.00 AM. and was ^{installed} at The "New Healy". Having 3.00 PM. 1/25 16 stop. An early lunch I took the

Ogden Canyon car and went up the Canyon to the Reservoir (Pineview) and there worked for some hours in the bottom land and on the lower slopes of the Canyon. As we had worked the slopes for about six hundred feet up I did not have the time available to go on there. The vast abundance of Melanoplus atlanticus was most discouraging, making collecting work very hard. However, I secured several particularly desirable things. I was back at the hotel about five.

Spotted (X) Sandpiper. Two in Ogden Canyon.

Belted Kingfisher. One in Ogden Canyon.

Aug. 16. 1922. Ogden, Utah to Clovis Valley, Nevada.
I was up at 5.00 AM. and had breakfast at the Station. Morgan's train came in at 5.50 but he was not on it, that is he came from West Yellowstone or another one and arrived somewhat later. After he had gotten some break-

fast we tried to get on the Pacific
 Limited, but due to strike congestion
 they were endeavoring to keep local
 passengers off of it. However, by
 the exercise of a little clever
 work we managed to get on the
 observation car. It was 1.30 P.M.
^{when} we arrived at Wells, Nevada, and
 after considerable inquiry, based on
 some correspondence of Morgan's,
 we got a machine and started
 out to endeavor to find a ranchman
 who would spare two horses for
 us to work up into the mountains.
 The valley on the east side of the
 Ruby Range is Clear Valley and
 it is full of splendid hay
 fields. All the ranches were
 haying, and only after considerable
 time and search we found
 Mr. Winchell who was willing
 to let us have two horses for
 the work, and Mrs. W. was willing
 to put us up. The ranch house
 is a brick building, with wonderful
 Lombardy poplars about. We worked
 for about an hour and a half late
 in the afternoon and had good
 luck. The Winchells were most
 kind to us and went far out of

their way to make us comfortable. The sun^{set} view of on the valley of rich green hay field with the purple^d desert mountains all on the horizon was magnificent, while turning to the west the Ruby range towered above us, with its orange streaked upper slopes.

Shrikes. A number at Clam Valley. Magpie app. ~~the~~ the big species) seen in fence near Coburn.

Sage hen. Flock of five in alfalfa at ranch.

Mourning Dove. Several flocks - Wells to Clam Valley.

Meadow Lark. Sw. in field at Clam Valley.

Brewer's Blackbird. Large flock at Ranch.

Aug. 17,
1962.

To Ruby Range and return to Clam Valley, Elko Co., Nevada.

We were up about 5:45 AM and after breakfast the wrangling of the horses we were to use was next in order. One was very easy, an old, sophisticated white horse, who was gentle and intelligent. With him as a mount Morgan

#5 Looking S.W. from 7000 feet.

toward Southern part. Ruby Group.

9.10 AM. 16 stop 1/25.

Film 2. proceeded to get the second horse,
#6. a younger black animal, which
looking was a splendid saddle animal
found when finally bridled. However, he
Ruby Range gave Morgan many a chase on
from 8000 the large pasture before we could
put, elev. finally get him into the corral
10,000 AM and bridled. We set out about
1/15 16 stop. 8.15 AM. and headed directly

Film 3 for a very extensive snow area in
#1-5. one of the canyons. The rise, gradual
Views for about four miles, then quite
taken at steep and steady climbing work,
10,000 was through sage, then into a
feet in chaparral which made me think
Ruby Mts. of manzanita, and areas of aspen.
on east The going in the chaparral and
side. aspen was hard. We reach the
12N-2PM. snow at 12.00 and here we ate our
1/25 or less. lunch (elev. ab. 9500 feet), drinking
16 stop. the ice-cold water running from under
the ice. snow. Leaving the horses there
we worked up to 10,000 feet, where
Morgan started out for the main
ridge, while I was to work that vicinity
until he should get back. The slopes
were steep and stony, but with
many wild flowers in bloom, the
purple lupine being everywhere.
Morgan reached the main ridge,

elev. 11,200 feet and then came
 down, after picking up all the
~~Orthoptera~~ he found there. His
 going was very steep and he was
 very tired. We started down at
 3.00 P.M., as one storm raged out
 on the Blaine Valley and another
 one came along the Ruby Range.
 The latter caught us and we
 rode for about three miles through
 the rain, getting pretty wet. We
 reached the ranch at 5.00 P.M.
 very tired.

Woodcock. Morgan saw a bunch in
 pasture at ranch.

Mourning Dove. Sev. in road at Ranch.
 Pinon Jays (?) Morgan saw two at
 about 7500 feet.

Magpie. One seen at about 7000 feet.
 Golden Eagle. Morgan saw two
 at about 10,800, leaning rocky
 crags.

Marmots. Whistled about us at 10,000 feet.
 Chipmunks. At same elev.

Pinnill. One on lower slope of mtn. - ^{flung}
 Nighthawk. Sev. " " " " "
 Wilder - Number in corral & hay
 Brewer's Blackbird. Numerous at ^{field} ranch.

Aug. 18, Mitchell's Ranch, Clorn Valley,
1922. Elko Co., Nevada to en route
to Reno, Nevada.

Jul 3 We were up shortly after six o'clock
O. Mitchell and after breakfast did some
Ranch. collecting in the sage brush
10.05 AM. and similar conditions for about
1/25 16 44 p. a half mile above the ranch
toward the Ruby Mountains.
We left at 10.30 AM. by machine
for Mills, there to find that instead
of arriving at 11.22 AM. our train
would not arrive until after
three P.M. A storm passed on
while we were waiting, and I
spent my time writing letters and
reading proof. We finally left
about 3.40 P.M. and saw much
of the country to the west by
daylight. It was at Battle
Mountain at 8.30 P.M. that I
finally turned in for the night.

Night Hawk. Sw. at Clorn Valley.
Barn's Blackbird. Numerous at
Mitchell's Ranch.

Aug. 19, Reno, Nevada to Westwood, Lassen
1922. Co., California.

We were routed out of our berths at 2.10 AM, the train being four hours late. The hotel bus added excitement to the hour by dropping my bag & the spare into the middle of the street & bracing a corner open on each. We registered at the Golden Hotel and tumbled into bed again. After a satisfactory breakfast we boarded the train for Westwood at about 9.00 AM. Made on at Sparks it was a comfortable little train of three cars, one of which was the comfortable old-style Pullman in which we were riding. The route was from Ferry Street along the west-side of Pyramid Lake. No intensely blue water bore numerous white pelicans and also a small gull. From Pyramid Lake to the vicinity of Arroyo Lake it is largely flat of brown adobe, covered solely with sage brush. At Susanville the first Sierran hills and the first timber is reached. From there to Westwood is right up into the heart of the

section of the Sierras. The yellow pine and fir get taller and more impressive, forming frequently on great outcrops of lava, which the Susan River boils away into the lake country. At Mistwood, which is the lumber town of the Red River Lumber Company, we were very comfortably roomed, by our having taken the advice of a railroad official on the S.P. and wired for rooms. We ate at a very satisfactory club restaurant.

White Pelicans. Numerous on Pyramid Lake.
 Gull full - Numerous on ditto.
 Red-tailed Hawk. One betw.
 Susanville & Mistwood.
 Night Hawk. Sw. at Mistwood.

Aug. 20.
 1922.
 Film 4
 no. 1.
 Looking
 across
 Pyramid
 Lake at
 ab. 7600
 feet.
 11.00 am.

Mistwood to Harkness Peak, Lassen
 Volcanic Park, Cal. & return.

After a good breakfast at the Club we left in a Packard trim-six and travelled through magnificent forest, first of bull pine & white fir, then sugar pine and lastly of Douglas fir.

- no. 2. Our route took us past several
 ditto at timber camps, then the little town
 7800 feet. of Chester, then off on to a mountain
 11.15 AM road which was steady climb
- no. 3. for nearly two hours to Juniper
 Lassen Peak Lake, altitude about 7800 feet.
 from Harkness Peak summit This is at the foot of the real
 1.50 PM peak of Mt. Harkness. At 11.00
- no. 4. AM. we started for this summit
 Shasta from Harkness and worked up our lava,
 Peak summit. large & small, with moraine
 1.50 PM of other material showing the
 glacial grooving, and to a
- no. 5. Summit core of small fragments
 looking E. and almost granular stretch of
 from Harkness Peak. lava. The view from the summit
 1.50 PM was splendid, the elev. 9200 feet.
 To the west Mt. Lassen dominated
 all everything, while off to
 the north the white lined hills
 of Shasta were hung like a
 great cloud. At our feet was
 the deep blue of Juniper Lake,
 while peaks and knolls of lower
 elevation, covered with heavy
 forest were in every direction.
- no. 6. The ride back was just as
 interesting as that up, and we
 were back at Mustang tired,
 but with a most productive
 day's work to repay us.
- Film 5.
 no. 1. Large blonglas
 on Mt. Harkness
 near Juniper
 Lake ab.
 7800 feet.
- no. 2. Typical
 tall pine
 forest
 at 4800 feet.
 4.30 PM.

Eutamias chipmunk. Common everywhere.

Callospermophilus. Nearly equally numerous.

Mtn. Quail - Two on a boulder at about 7000 feet.

bluish grouse. One at about 7500 feet, another on summit of Mt. Harbress.

California Woodpecker. One at 7500 feet.

Turkey Buzzard. One at Chester.

Aug. 21, Motenard to Arvadac California.

1922.

We left Motenard via a jitney (Chevrolet) at 8.00 AM. with our three heavy bags stored in the rear seat, with one of us, the two changing occasionally. We went down the Susanville road, through the magnificent Sierra forest, on the lower divide between the Feather River drainage (Pacific) the Susan River (Great Basin). The road to Susanville is a new one, beautifully graded. We worked at two localities just outside of Motenard, one a wet meadow, the

other a drier one with an intrusion
 of sage, also at ~~which~~ what is
 called the Devil's Corral, on
 the Susan River. A great deal
 of the course of the Susan River
 for about ten miles above Susan-
 ville is through lava beds, and
 the Devil's Corral shows very ex-
 posure areas of volcanic origin.
 The final drop out of the mountains
 is directly into Susanville, which
 is immediately at the foot of the
 mountains, and was a great
 point for starting across from
 49 m. We lunched at a Chinese
 restaurant in Susanville and
 about Twelve-Thirty started for
 Amadee, where we were to lay-
 over night and then go on on
 the narrow-gauge Nevada,
 California and Oregon Railroad
 to Alturas and Lakeview. From
 Susanville down to Richfield
 ranch succeeded ranch, with
 hay and alfalfa fields, a
 number of sloughs having a large
 number of ducks in them. The
 ground became more and
 more alkaline, the road
 poorer, the dust thicker and
 more pungent. The sage, which

had predominated in the uncultivated land, began to be mixed with Sarcobatus, and finally replaced almost entirely by the latter. From about five miles above Grand to Amadec the dust was frightful and the road extremely poor. Amadec is a group of about a half dozen buildings gathered about a collection of hot springs, which bubble up from the soil. The hotel is a large barn-like structure, which certainly was someone's "folly", as it clearly cost many times more than the patronage of the springs would warrant. It is a melancholy place with few and hopelessly inadequate furnishings. I got a large room with two beds, and put up our day's catch, while the wind, which had been heavy all afternoon, ceased outside. After dinner, of a most primitive kind, we took the flash-lamps and went out to look for dermestids and centrophiles, with little success.

Magpie. One near Susanville.

Pentail. Numbers in Douglas between

Susannah and Lichfield.
 Ducks, other species but not
 determined. Numbers in
 sloughs as above.

Entomias.
Callospermophilus } Common in
 Sierra Nevada.
 Westward to Susan-
 ville.

Crotaphytus of the virgilitzensis type.
 One, the largest of the genus I
 have ever seen, at Richfield.

Aug. 22, Amador, California to Alturas,
 1922. California.
 Film 5 We had a good night's rest, which
 no. 3. was hardly to be expected after
 ducks on the general impression created
 Honey Lake. by the dilapidated condition
 pm light. of the hotel. After a rough but
 9.00 am. filling breakfast, we struck out
 11 stop past the hot springs, over alkali
 1/25. saturated silt, with Sarcobatus
 and rabbit weed, toward the
 shore of Honey Lake. The day
 was overcast and cool, while
 the mosquitoes were bad. We had
 fair success in our collecting.
 The great sight of the day was
 the vast numbers of water

fool in Honey Lake. The ducks
were by the thousands, feeding
in the shallows, moving out as
you walked along the shore. We
could not identify the species,
but we saw one splendid bunch
of about a dozen avocet, while
many sandpipers, sp.?, and
killdeer ran along the shore.

After lunch we went to board
the 1.55 P.M. mixed train for
Alturas, but it was 5.20 P.M.
before it arrived & finally left.
We had a large cake of sweet chocolate
with us and that was all the
nourishment until the narrow-
gauge N. C. & O. train reached
Madeline at 10.45 P.M. There
we had supper and after dozing
curled up in a seat for some
hours we reached Alturas
shortly after 2. A.M. We were
~~at~~ soon installed in a com-
fortable double room, ^{at the Miles Hotel} and we
slept the sleep of the tired until
about 7.00 A.M.

Avocet. About a dozen in Honey Lake.
Ducks sp.?? Thousands as ditto.
Brewer's Blackbirds. About four of
Ardees.

1 Elder. Numerous on shore of Honey Lake.

Sandpiper sp? Quite a few on shore of Honey Lake.

One of the hot springs at Amidee is a small geyser, bubbling up through a calcareous aperture, and every 45 seconds throwing a column of water to a height of 15-18 inches, lasting about 15 to 20 seconds. The other springs are bubbling springs, some apparently of far greater discharge than the geyser. Another pump is located just south of Mendel.

Aug. 23, Alturas, California ~~to Lakeview~~, 1922. ~~Oregon~~.

Breakfast concluded, we hired a car, and started out to work the vicinity of Looking S. E. Alturas. We went off to the farm edge east and worked in pasture flora land, sage brush on silt, escarpment sage brush on low lava hills in Alturas and sun-cured short grass 2-500 M. draws. Results were at first rather poor, but before going for lunch we had gotten a

very good assortment and series
 of several most desirable things.
 After lunch, using the machine,
 we went off to the north-west and
 climbed the edge of the great
 Modoc lava ~~escarpment~~ bed, this
 being about 800 feet above the
 valley of the upper Pitt River.
 The char is largely scattered
 juniper, and we found little
 of interest. We walked down the
 slope and then in dry grass
 and lava at the base, getting
 several species additional to
 the morning's work. At six
 we were informed our train was
 one hour and forty minutes late
 and according we went to meet
 it, only to find it had arrived
 & departed ten minutes before.
 As there is but one fair train
 every other day, our disgust could
 not be expressed by words. We at once
 set about getting a machine to
 take us to Lakeview, Oregon & back.
 Godwits. Morgan saw several in
~~slough~~^{lake} at Alturas.
 Great Blue Heron. Three in lake
 at ditto. - one quite tame.
 Tern, with black cap - One
 flying over same.

Bittern - two in lake at
 Alturas - common
 Gull. - in mottled plumage -
 one washing along slough at
 Alturas.
 Herring sp. ?? Numerous in
 lakes - sloughs at Alturas.
 Brewer's Blackbird Numerous
 at Alturas.
 Sprike. One in fence at ditto.
 Pomill. One.

Aug. 17, Alturas, California to Lakeview,
 Ore., and return.

Film 5 No left Alturas at 6.15 AM.

no. 5-6. with the same large 10 cylinder

Sundstone "Hay" machine in use, water
 pinnacles Aug., coming from Lakeview, Ore. on

along Pitt and return. Deer course

from N.E. and first north east to the

of Alturas, common to the Pitt River

Cal. through the Nevada area take

4.30 PM camp, men in the area,

1/20-16 stop. dropping down again
 to the broad valley of Lake
 Lake. Bird life was much

in evidence so early in the
 morning. Over Lake is 40
 miles long, but very shallow
 and into the surrounding
 one to Pyramid Lake. The
 Warner Range to the east
 makes a good section for the
 Lake. The east shore of

which has many ranches, cattle,
 alfalfa & hay, while orchards of
 apples, pears & apricots are in
 evidence. Between the lava and
 the east corner of the lake the
 road drops some, then has to
 climb up and around a spur
 of the Warner Range named
 "Sugar Hill", where you find
 some little pines in the well
 grown belt. In a belt of sandstone
 which is in a pocket of the lava &
 lava plateau is a collection of
 remarkable weathered sandstone
 pinnacles, some about 25 feet
 high, of which we took several
 pictures when returning. From
 Sugar Hill it is not very far
 to New Pine Valley, a town said
 in California land was in
 Oregon. From there it was 10
 miles to Radium, on the outskirts
 of which we did our first work
 of the day. We arrived at Lake-
 view, 15 miles - two miles from
 Radium, before dark. After
 lunch we started back and
 ran steadily until the climb
 about Sugar Hill was reached.
 Here we worked on a lava bench

which was in the corner, with
brown nodules of oxidium.
After this no working in the
neighb. fine, but a small little
group, called Gurray, was inter-
esting of itself. It was now
there in with a thunderstone or
being so, and reached, from
north, after five P.M.

Cotton. Fair, moist, warm sun,
 soil 20 miles from Astoria,
 and warm. Astoria.

1000's of tanks, everywhere,
in car lots, about race
courses, etc.

Yellow blades, 1/2 in. long, 1/4 in. wide,
6 in. long, not over 1/2 in. wide.
Stems, 1/2 in. long, 1/4 in. wide,
in roots.

Head and Neck. Numerous small
white spots.

very rich. many flowers.
Some common. Red, white.
Many six or seven leaves.
Hills at summit of
plateau.

transiens 14 Nov. - found at
Harris Creek.

Red-shafted Flicker. Sev. at Glass
Creek.

Levio's Woodpecker. Several small
lots around Glass Creek &
Pahrean.

Red-tailed Hawk. Sev. at Sugar Hill.
Plover. Sev. at Sugar Hill.

Sparrow Hawk. Regularly scattered
along with, particularly about
cultivated tracts.

Crow. Large flock at Sunday's
Creek, Cal.

Aug. 25, Alturas to summit of Cedar
1912. Peak, Warner Mts., Mono Co.,
California.

Film 6 No left the hotel at 9.00 AM. with
#1

Looking east the same drive and car we have
in surprise been using, and tumbled east over
valley from the Cedarville road to the pass
summit of in the ^{Warner} mountains south of Cedar
Cedar Peak. which was an objection
1.30 PM. point. The road first climbed
1/25 16 stop.

#2 The rather indefinite edge
of the lava escarpment then
entered some juniper country
which quickly gave way to
white pine, and this to fir
and aspen in the creek ravine
as the road steadily climbed.

#3
Looking S.
from the
summit
Warner Peak.

Warner Mts., from above.
 Same date.
 # 4
 Looking N. toward Goose Lake from ditto
 Same date
 # 5
 Habitat of rare *Austrioides* in Cedar Peak at 8100 feet.
 2.00 PM.
 1/25 16 stop
 # 6
 Cedar Peak from C. canyon at 7300 feet.
 2.22 PM.
 1/25 16 stop

The summit on the road is 6200 feet, and here we left the car, straining out up a canon which led up to the summation face of the peak we had as an object. No soon as the going was very heavy, the trails only sheep trails which lay nowhere in particular, while the rock work, due to volcanic pinnacles and edges was very near, particularly between 6500 and 8000 feet. The slopes otherwise were very steep, loose dirt between the rock outcrops, and with some patches of *manzanita* chaparral and mesquite sage. It was a very hard pull on me, indeed, but it finally made to peak (8100 feet) which we thought for a while was the main peak, we then went that into a half mile away, along a hog-back which dropped about 200 feet and then coming about 100. This saddle ridge had about five groups of pinnacles which made climbing particularly mean. However, I secured one male of a most remarkable *Austrioides* in this stretch, no more of which

were seen. The views from the
 top were wonderful, I haste
 standing out against the sky
 in a most picturesque manner,
 while in the dim distance,
 over 180 miles away, we could
 make out the outline of Mt.
 Lassen. To the west surprise
 valley lay below us, to the north
 Red Bull Peak in the Warner,
 to the south Warner Peak 8300
 feet, in the same. The summit
 of Cedar Peak is 8400 feet elev.
 We dropped down to the car in
 about an hour of scrambling,
 slipping, up and down slopes,
 through chaparral & sage. We
 were very tired when we reached
 the car, and on our arrival
 in town we prepared a shipment
 of material for sending home.

Turn (black head - red tile, seen
 at the east of Altamira - seen there
 Aug. 23.

Great Blue Heron. Two at delta.
 Brewer's Blackbird. In ~~the~~
 abundance about ranches.
 Sparrow Hawk numerous, one
 on top of Cedar Peak.

High Hawk. Numerous on
Alturas at coming
Charles Crow. One which on
summit of Cedar Peak.
Rock Men. W. on detto.

Aug. 26, Alturas, California en route to
1922. Tonopah, Nevada.

The narrow gauge from the
north arrived at Alturas at
9.30 A.M., on time, and we left for
Mendocino on the det. Along the
south fork of the Pitt River,
which we followed for about
Twenty-five miles in many
stages, with numerous water-
falls. Much at Madeline was filling
it rather rough, and the
interminable climb on car
wheels ending at it ended at
3.15 P.M. on time. The Southern
Pacific Train from Moscow
left Mendocino at 3.50 on time,
and the ride down the west
side of Pyramid Lake, just
before sunset, was beautiful
in the extreme, backed as it
was by the rainbow of a storm
over the same range to the
east. At Fernley we caught
on ~~for~~ the Tonopah train

from San Francisco, having a fine T-bone steak and most wonderful melon for dinner. Morgan wandered into the brush and got the most northern records for Hespero-
telus, between showers. Our train came along at 11.00 P.M. and in uniform com-
fortably in bed & asleep.

Hawks - 2 lots on S. Fork of Pitt
Bittern - One flushed on ditto.
Killdeer. Common where along ditto.
Barns / Blackbirds - About every
ranch & in pastures on S. Fork
of Pitt River.

Great Blue Heron. - Two on ditto.
Mourner. Six along ditto.
Marsh Hawk. One!.. "

Prairie sp. ? - One flying along ditto.
Apparently Virginia may have pattern
White Pelicans. Numbers on Pyramid Lake.
Full sp. ? Quite a few in some.

Aug. 27, 1922. Donopah and Millers, Nevada.
When I got up at 6.30 AM. we were
about 10 miles west of Donopah, and
59 from Millers up the long grade.
Crotaphytus into the Donopah hills the train
Millers, crawled for an hour. It was
Esmeralda about 8.30 before we managed
Co, Nevada. To get engaged to the hotel
(J.K.)

- Film 7 any in one fairer camera
 # 1 in breakfast, which we had at
 Tonopah a very good place, very comfortable
 men at mes. Tonopah had a big fire
 Tonopah. but a few days ago, which
 7.00 AM. burned out the famous old
 11-10 "Casino" and the restricted
 1/5 district. It nearly took the
 # 2 railway station and every-
 thing there about. The wind
 at Tonopah, had over the first
 morning instead of the east the wind
 N. from north probably was then
 10.00 AM. destroyed. In got a 4000 machine
 16 stop 1/25 and spent the morning in the
 hills east of the town, about
 # 3 and east of the Tonopah basement
 Tonopah mine. The results were
 run S.E. interesting in scarce and
 11.20 AM. seemed to indicate that Tonopah
 16 stop 1/25 is too high to get the
 # 4 marked condition of the country
 14 at 1st + and was searching
 cycloptera for. After lunch we took the
 at Miller, same machine and drove
 Nevada. and went sixteen miles down
 4.45 PM. the grade to the first to the flats
 11-16. north of the mine at Miller.
 1/25 Here, at 4900 feet elevation,
 in found the southern fauna
 far more marked and in

secured Encycloptera, Pentel-
ella, Mercurina pinto, etc
 and atracides had a regatta
afternoon. After a good dinner
was put up material, re-
packed and prepared to leave
in the morning train through
to San Francisco.

Aug. 28. Inopah, Nevada, en route to
 1922. San Francisco, Cal.

Travelled all day, via Mina,
 Hazen & Truckee, on Donner
 Pass. We left Inopah at 9.10
 A.M. on a through San Francisco
 Pullman. There was much rain
 in the way, around Mina-
 Thore. We were delayed over
 hour in the night by burning
 down sheds along Truckee.

Aug. 29. We reached Oakland Pier about
 1922. 8.45 A.M., checked our bags, called
 Mr. Grinnell's house and found
 he was in Berkeley, then break-
 fasted. This finished we went
 out to Berkeley to see Mr.
 Grinnell and had a very
 pleasant visit with him at the
 Museum. His assistant - Dixon

I am no much useful information
 regarding machine telescope
 plan. We dined with Mrs.
 Grinnell and Van Rye at the
 Faculty Club. As each had
 lecture at one o'clock, we
 parted with our delightful hosts,
 and hurried back to Oakland,
 across San Francisco Bay &
 city to Golden Gate Park and
 to the Museum. Our greeting
 from Mr. Van Rye was cordial
 in the extreme, and at the
 urgent invitation of himself &
 his good wife we had a most
 pleasant and enjoyable dinner
 with them. The hour passed
 only too rapidly, and with some
 regret at leaving always
 hospitable San Francisco, we
 made our way to the Oakland
 Pier and boarded the Fresno
 sleeper.

full, modern California in number
 in San Francisco Bay.

Aug. 30.
 1922.

En route to Coalinga, California,
 and work there about.

We were off at Fresno shortly
 before seven and got a hasty

Took breakfast, re-checked our camp
 #5. Kit and climbed on a train
 Bush for Johnson Junction, leaving at
 7.45 AM. We ran through vineyards
 by *Astilbes* and orchards, in prosperous
 cal. as "Home" order, like some of the
 "Columbia Raisin", and another sign,
 9.05 AM. "The Home of the Peach". At Johnson
 Junction we had a short wait,
 which Morgan improved by getting
 some good things. It was a
 two hour ride to Colunga, at
 first through orchards & vineyards,
 then the country became drier,
 with the sun-colored yellow grass
 so characteristic of much of
 California, then the *Wickstroemia*
 came and the rest of the
Sierria north of Colunga came
 into view. At Colunga we
 were very comfortably quartered
 at the Petrolia Hotel, and then
 proceeded to get a good lunch and
 a machine. We got the latter but
 not a man for the afternoon, so
 Morgan took the wheel. We worked
 out for about seven miles to the
 east and had excellent success,
 although the variety of species
 was much limited. After

since I stayed, material and
 money made a rather disap-
 pointing for with a machine
 light. The day was pretty hot &
 the light was fading.
 Crows. Hummer at Coalinga.
 Burn's Blackbird. Sage finches
 at Coalinga.
 Horned Lark. Numerous small
 birds out of Coalinga.
 Road-runner. Two, short
 distance out of Coalinga.

Aug. 31, Coalinga, California to Priest
 1922. Valley, Diablo Range and return.
 Feb. 7. We left the hotel about 8.00 AM.
 #6. with a large Studebaker car and
 Hillside headed for the higher sections
 habitat of the Diablo Range of the Coast
 of desert, Ranges to the west. We went
Hesperus, up Alcalde Canyon, past the
Oedipus. deserted town of Alcalde,
 & new Mel. steadily climbing, up into
 Priest Valley. The broader portion of the
 2600 feet. same drainage channel,
 1.30 PM. which is called Waltham
 1/25 stop Creek. We passed from the
 bks 16-22. bare semi-desert hillsides
 of the Alcalde foothills to the
 higher sections where
 far-wood and yellow grass,

- Film 8. This with a smoky-looking
 #1 pine and large areas of
 Looking up chamise, became predominant.
 Waltham We worked at several stations
 Creek N.W. in each apparently marked
 from 1800 commencement, at 1000 feet,
 feet. at 1300 feet, at 1600 feet, and
 3.00 PM. finally at 2000-2600 feet.
 Oct 16 + 17 where the divide between the
 1/15 San Joaquin drainage of
 #2. Looking Waltham Creek was left behind
 across. and we entered Priest Valley,
 ditto which drains into the
 (not). Salinas River. Work was in-
 same teresting and profitable, but
 data slow and tedious. Much
 #3 Looking important information was
 down secured on a number of species.
 ditto Our intention had been to
 (S.E.) try for the upper slopes of
 same Cedar Peak, which trended to
 data. the east of where we stopped,
 reaching a height of over
 3500 feet. It was evident,
 however, that the chamise
 extended solidly to the top
 and no changed conditions would
 be encountered. Inquiring at
 a Priest Valley farm house
 developed the information

that my impression regarding the extent of chumise in Central Texas was correct, and also that it was extremely heavy and difficult to penetrate. The fur used was our greatest annoyance in collecting, new net bags some being stiff and rubbery. We were back at Coalinga about 5.05 P.M. and our whole evening was taken up in preparing material.

Amuroperomyscus. Very common above about 1200 feet.

Calomys Wagneri. Numerous in the south, i. e. above 1000 feet.

Blarina. Quite a few above the Colorado Canyon.

Sept. 1, Coalinga to Bahusfield, California.
1922.

We were up at 5.45 A.M. and after a very substantial breakfast we left via train at 7.05 A.M. for Goshute Junction. Changing there we travelled south by Dulare to Bahusfield. We arrived at 11.10 A.M. and shortly

were installed at the Southern
 Hotel in comfortable rooms. A
 conference with the man who
 brought us from the station resulted
 in his engagement to take us
 out for the next three or four
 days, then some lunch and getting
 our mail was in order. In the
 afternoon we worked at several
 localities along the San Francisco
 Road, about eight miles out,
 in dry yellow grass, in a spiny
 bush and along an irrigating
 ditch. The results were most
 satisfactory, getting series of two
 species which were very desirable.
 It was a hot day and the evening
 was a very warm one in San-
 Francisco, so that packing materials
 and writing letters was not a
 wholly pleasing diversion.

Worming Run. Numerous beetles.
 Coarctata + fisher.

Burrowing Owl. One near Hanford.
 Crow. One near Hanford.

~~Northern~~ ^{Vilom} Phalarope (no Rufous on
 neck) One in ditch near
 Hanford.

Sept 2,
1922.

Bakersfield to Walker Basin,
southern Tierras, and return.

We left the hotel at 5:00 AM. with the same drive we had yesterday afternoon. We followed the excellent, big built road on the Tehachapi Pass east to Caliente, to reach which we were climbing for quite some distance. We worked at Berra, below Caliente and above Caliente. From the latter place we followed up Caliente Creek Canyon for some miles, then turning directly into the hills and climbed steadily, up a most beautifully graded road, up - up, until, at four thousand feet we started to drop down to Walker Basin. We worked at 4000 feet, with no little result, also at Walker Valley with similar results. The timber above the river canyons is scattered oaks with numerous "Droche" pines. Our lunch in Walker Basin consisted of one large casaba melon, which was sufficient to fill us up for a while. The return down the grade was made without

note on the incident, and we
were back at Bakersfield shortly
before five o'clock. Morgan then
spent considerable time in
securing information regarding
Mt. Pinos, which we wished to
visit next.

Golden Eagle. One few seen to car
near Caliente - flouided over.
California Woodpecker. Numerous
at 4000 feet near Merced Basin.

Sept. 3, Bakersfield to Horoney's Ranch,
1922. Teachapi Mts., Ventura Co.,
Cal.

We left Bakersfield at 8.00 AM.
and using the same Cadillac
and driver we had yesterday
we travelled due south across
the southern end of the San
Joaquin Valley, thirty-one miles
to the foot of Tejon Canyon.
The road is straight-away for
eighteen miles and all the
way to Lebec is ~~an~~ magnificent
highway of concrete, splendidly
graded! At the foot of Tejon
Canyon the road climbs in ser-
pentine to an easier grade up

the canyon and then on
 ten miles we are steadily
 climbing, among splendid valleys -
 as pretty a piece of water
 natural country as I have seen
 in California. At night we
 turned, we went and took a
 mountain road for about seven
 ten miles, steadily climbing,
 and after several inquiries at
 cabins we stopped at Newman's
 Camp, at about 5500 feet, and
 relatively close to Mt. Davis,
 our objective. Mr. Newman
 said he could take care of us,
 and started in to give us a
 good dinner. In the afternoon
 our workers, the vicinities, with
 good results, and under Mr.
 Newman's direction, we went
 up to the car camp, the point
 from which to begin the ascent
 of the mountain. There was one
 bad bog piece which showed
 the Cadillac to so we decided
 on the other approach in the
 mountain. We shared the tent
 of Mr. Chun, a well educated
 Chinaman of Los Angeles, and
 we did well with mother earth
 for a bed.

- Sept. 4, Morning's Ranch to Mt. Pinos
 14 12. & Return to Bakersfield, Cal.
 Film 8. We were up at ten AM. and after
 # 4 a hearty breakfast departed
 with a party of seven hunters, including
 the servants, headed by Mr. Hume,
 of Mt. Pinos. To the head of Seymour Creek at
 24 AM. stop ab. 5000 feet. Here leaving the
 road 11-16 machine, Mr. Hume-in-law & I
 1/15 Mr. Hume and myself started
 # 5 across country and struck an
 Looking E. old wagon grade which runs
 down from to the summit of Mt. Pinos.
 slope of mt. It was well shaded, the slope
 Pinos at was even, but the run was long
 ab. 8000 ft. as it worked around the
 16 1/15 south & east slopes
 10.30 AM. and then over to the north
 # 6 side and up a long ridge leading
 with to the upper portion of the mountain.
 with It was approximately five miles
 with to the saw-mill at ^{near} the summit,
 the latter rather one of a number
 of rounded knobs forming
 from a narrow ridge. The bull
 pine carried to the ridge of
 the summit but the highest
 pines ^{were} well supplied with
 fir, some of very large size.
 The summit is 6000 feet above sea.

and the view from the top of the ridge most magnificent. So the U. C. men camped near the point of the San Bernardino. San Jacinto ranges, as well as the San Jacinto to the north and in a half an hour we were off collecting, particularly in the way down when we took a series of *Pinocollis* on ~~steep~~ ^{crumbling} slopes - which is rare. We were back at our house before one o'clock and by 2:30 had packed & started back to Kams field. We stopped at a wagon a short distance from reaching the bar and in about 20 minutes took out about 100 specimens of a very considerable number of species, the most such as *Pocillo-*
vetter, *Trichomastax*, etc. It was in fact one of the very richest sites we have ever worked in California. We were back in Kams field about 5:30, cleaned up, dined, prepared our ~~notes~~ materials and at 9:00 P.M. were on the way to go to Mojave, then up to Seaside & Orinda.

San Jacinto's Warbler. Saw flock in
for an hour or so at 10:00

Pygmy Nuthatch. ' See on Mt. Pinos in
 juv.

old, narrow stream. One in
 on Mt. Pinos 10,000 ft.

8,000 ft.

Crows. 1500. 1500. 1500. 1500.

California 1000 ft. 1000 ft.

California 1000 ft. 1000 ft.

Sept. 5. Ensenada to Tuma, Cal.
 1911. We reached Tuma at 6.30 AM.

on three hours late, as for some
 reason our engine broke down
 going up Schachapi Hill, so
 we waited and waited, &
 stopped & started. The Union
 train was waiting, so while
 I was in our baggage and
 then got some breakfast for the
 two of us, I stayed with
 tickets & thing on field kit.
 At last we changed to the
 Tuma train and at last we
 reached Tuma on Seares
 Lake, the site of the large plant
 of the American Tuma Corporation.
 Armed with a letter and telegram
 we sought out the management
 with ~~the~~ utmost courtesy
 we placed a splendid room
 at our disposal and arranged

so that we could eat at the com-
pany's mess. He also assisted
us in getting a man and car
to make the Panamint trip,
so that in two or three hours
all the real plans had been
successfully laid. We spent
most of the afternoon visiting
the area and the main
summits of the Argus
range. In the evening we went
to the hotel and out to
the mesa.

By the way, the birds are scarce.

Running deer are also scarce.

Sept. 6 Froma to Charcoal Kilns, Wild
Rose Canyon, Panamint Range,
Inyo Co., Cal.

Feb. 9 We were up before 5.00 AM. man-
#1 Files - aged to get a bite of breakfast
at Peak and were on our way a few minutes
from Panamint after six. Our driver and com-
panion, whose name is H. H.
Smith, is a Louisiana boy
of Wild Rose and a delightful companion.
Canyon We gradually climbed north
8.45 AM. up the valley in which Seales
lives 1602 ft.

Film 9

2 Lake is situated to near its north end, then climbing by an easy Canyon walls. The pass is to about 3000 feet, with at ab. 5000 feet. ~~from~~ the Panamint Valley spread out before us like a map, dominated

11.00 AM.
to 10-12.
1/25

3 Up Mef

Rose Canyon,

from lower

Spring 3600

feet 11.40

AM. 16

1/25

4. Down

ditto.

Same date

5

Down Mef

Rose Canyon

from 5500'

Looking due

W - Sierras

in distance

1 PM.

22 - 1/25

6

Caf Kilns

Mef Rose

Canyon.

6500 feet.

2.10 PM.

16 1/25

#

Film 10

1 Down

Mef Rose

Canyon from

Kilns

same date

to the east by the bulk of the Panamint Range, capped by Telescope Peak. From this pass it is a very steep and sharp drop to the valley slopes and we must descend carefully. Ballarat lies on the east side of the valley, and we crossed the salt and mud flat on the 1000 foot level, getting to Ballarat about after eight. Ballarat has a well and about fifteen houses, but only one family was there. The man helped us with a gasoline can to replace one of ours which got washed by a rock coming down the hill. From Ballarat we worked north following the road through Indian Ranch to the north of Mef Rose Canyon, twenty miles, a lot of it bad road which painfully suggested Emigrant Wagon, of unpleasant memory. Starting up Mef Rose

June 10th
 #
 With
 arms to
 Sierra.
 at 7 PM.
 June 12th
 10 stops.

Canyon the road was narrow, but
 the Charcoal pulled quickly.
 It 5000 feet in the river water,
 a very narrow stream, which
 was very partially dried. The
 up we worked, 4000 feet. Above
 the narrow - river was
 a line of 1000 feet dug out on
 a narrow canyon into a broad
 table, up which we were
 made in the road, there were
 narrow and steep sides, up
 to the top, Charcoal was
 at 6000 feet, where we camped.
 surrounded by pines. A
 single, small as they are, were
 over 1000 feet. After a
 long march we an and turned
 to the head of the valley, where
 we arrived, and arrived to
 the draw at the head of the
 canyon 8000 feet, which ends down
 into reach river canyon. But
 there was spread beneath valley, with
 all its iron display, the Uncompagn
 Range with its stripings and
 far off to the east, but sharply
 defined, the Charleston Range,
 about 100 miles away. It was
 one of the most stupendous
 phenomena we could imagine.

We returned to camp shortly after 4 and then packed specimens and had supper. The instant the sun dropped behind the hills a marked chill came into the air, which increased as time rolled on.

→ *Sankhlo*
Drail
Whole corn
Low field
Rose Canyon

Numerous in Wild Rose Canyon.
White-throated Swift. Numerous at Summit pass at 8500 feet.
Rich Man. Several at ab 3000 feet Wild Rose Canyon.

Sept. 7, 1922. Coal Hills, Wild Rose Canyon, Panamint Mts., Inyo Co., Cal.

Remained
1 film
10 a all
1 film
11

Telescope
Peak
trip -
pictures
by M.H.

To-day Morgan and Dickinson on drive were to try to reach the summit of Telescope Peak (11000ft+) and back in a day. Personally I realized that I could only join a drag on the party, so I climbed only the main ridge at the head of the canyon, to 8500 feet, then followed it north to a peak 9000 feet high, from which one could get a more comprehensive view of the country to the east. While the men had shown the whole evening before, cloud masses had covered much of the sky, and the morning was overcast and threatened

rain. It was quite cool, in fact
 cold, until nearly nine o'clock.
 The view was much obscured by
~~some~~ cloud masses, but the
 Providence Range could be recog-
 nized far off to the S. E. in addition
 to those mountains located yesterday.
 The peak I had climbed had a
 steep face toward Wild Horse Canyon,
 with a number of slides of large rock,
 but I went down over them. At noon
 I lunch by myself, washed dishes
 and then spent most of the after-
 noon endeavoring to collect in the
 general vicinity of the coal kilns,
 but the results were worse than
 poor. The Telescope Peak party returned
 about 5:15 P.M. after what Morgan
 said was the hardest climb he had
 ever had. All were very tired and
 had saw us by eight o'clock.
 Golden Eagle! M. saw two on summit
 of Telescope Peak.
 Por-will. Heard about camp in evening.
~~Por-will. Heard about~~
 White-throated Swift. Numerous upon ridge.
 Clark's Crow. Several on ditto.
 Red-shafted Flicker. ^{M. saw one at 9500 feet.} One seen, coming
 down from ridge.
 Kestrel (apparently, as several color was seen)
 Hummer. One dashed about camp at
 6:50 A.M.

Rock Men. One poking about crevices
in one of old kilns.
M. saw several at 9000 feet
on ridge of Baldy above
prayer.

Sept. 8. Chaural Kilns, Wild Rose Canyon,
1922. Panamint Mts., Inyo Co. to Drona,
Alt. no. Searles Lake, California.

60. We were stirring at 5.00 AM. and
Crotalus soon had breakfast started. The
Wild Rose right had been by no means as
Canyon cool as the previous one, so it was
Panamint possible to sleep with greater com-
Mts., Inyo fort. Breaking camp was quite a
Co., Cal. task, particularly when water
5200 feet. conservation to allow for possible
Bluish accident must be considered. The
inside clouds were rather heavy about the
of head mountains, and before the day was
contrasted on the country as we were leaving was
strongly being drunched, as we could see
with general from a distance. We started down
reddish the canyon at 7.45, working steadily
coloration but slowly, as it was all work and
compression and careful running,
on account of the terrific grades
and the stony roads. We worked
several places on the way down,

Film 12

1

Across to it Wild Horse Spring in filled all water
Sierras from containers, and then started down
Wild Horse the lower part of the canyon and
Canyon, 300 out on to the long washes and
feet also miserable section of the road
kilns. between the canyon mouth and
7.05 AM. Indian Ranch. In had fire
bull 18 sec. from the part way, out, it into Ballarat
16 stop. about 1.00 PM. Here we lunched
2

Looking down the canyon from
Wild Horse Spring. very much a mile in the vicinity
10.20 AM. on the crest of ^{mountain} valley range, which
16 stop 125 extends south of this pitiable
3 place. We left Ballarat about two,
General view of crosses, the great and intricate
Ballarat the slopes to the crossing of the
Panamint valley. various - large range of peaks. To the
12.50 PM. north a near storm was coming
Wind 1-16 down from the face of the mountain of the Wild
cloudy 1/25 Horse Canyon across the valley,
4 moving the dust of it in a

5
Y.R. at Ballarat. - great dust line smoke, throwing
General view of it far up on the east side of
Ballarat the Sierra Range. near Matunayo
Peak, in the Sierra, another
storm was coming. The grade across
6 to the Charles Lake valley is an
General view of unusually one from the Panamint
Ballarat side, as it is two miles long and
in some places is 19°, while it
is so rough it is like a series of

Film 13

1

Panamint
Flat near
Ballarat.

2.15 PM.

16 stop 1/25

2

Maturango,
Peak, Argus
Range with
Horn. from
Panamint
Flat.

2.15 PM.

16 stop 1/25

3

Storm over
Panamint
valley to
north from
grade into
Searles Lake
valley.

Ab. 4.00 PM.

4

Across
Panamint
valley toward
Telescope
Peak from
top of pass
to Searles
Lake Valley.
ab. 4.00 PM.

steps. Just on the top we discovered
we had picked up a nail, probably
at Ballarat and punctured a
tube. This took some time to repair,
but we collected to advantage
in the meantime. We ran into
Trona shortly after five, where we
installed in the room we had
been in before and then had our
dinner. It 'three days' work then
required removal, and putting
up our camp took until nearly
nine.

Aphelocoma Jay. Seen on way down
Wild Rose Canyon at
just above level. Heard about
Tila camp and were seen there
in the canyon at Wild Rose
Spring.

Hummingbird. Sev. in Wild Rose
Canyon.

Dead (sp?) are much in salt
pond at Ballarat, with single
unidentified larger dead.

Sept. 9,
1922.

Alt. no. 61

Callisaurus

Trona,
Searles Lake,
Cal.

Vicinity of Trona, San Bernardino
Co. and en route to Los Angeles,
Cal.

After a splendid night's sleep
and a good breakfast we moved
off to the north of the Trona.

Film 13

5

Looking plant, collecting in lake beds and up - above lower outcrops slope of the Indian Joe's Arroyo Canyon. It was quite hot garden, and results were but fair.

Arroyo Canyon. After lunch we managed to get 2.40 P.M. a man to take us in his

trk. 16-22. Cheered up as far in the Indian Joe's garden Canyon

1/25

6

Looking

down

ditto

3.00 P.M.

same other

data

Arroyo Canyon is extremely rough and the canyon was none too smooth, while the heat was intense. Indian Joe's garden has apples, apricots, figs and an enormous grape vine, which latter seems to be dying from lack of water. The water has been piped out for the Borodovay plant. Going up the canyon we caught almost nothing, but coming down we had fair luck. We were back at 4.15 P.M. and material + bags were packed, clothes changed and dinner absorbed in time to be on the train when she left at

6.30 P.M. The ride around the
side of the lake, just as darkness
fell, was beautiful in the extreme.
We reached our quarters about 8.00 P.M.,
and at 9.41 we were on the Los
Angeles & Pacific coast, & on our way
asleep.

^{valley} ~~mountain~~ trail. We found nearly a
hundred tracks in the Los Angeles
Range, the large north-n. & south
about edges of the flat.

Rock Wren. One in the Los
Angeles canyon.

Turkey Vulture. A number
seen on the ground in the U.S.

1

Sept. 10, Los Angeles to San Diego, Cal.

1900.

The morning running into
Los Angeles was beautiful, cool
and pleasant. We arrived at
7.40 A.M. and Dickinson, who
came down from Santa Fe
with us, was at the station to meet
us. We were seen at the Santa Fe
Station and having a good break-
fast. Our plans were soon made,
and it was arranged that Dickin-
son was to accompany us as far
as El Centro at an agreed rate.

After arranging to meet at about one
 o'clock we parted, Morgan and I
 to search for a ship in Chinatown
 open on Sunday. Los Angeles was
 very dirty and the Mexican
 gristler, through which we had
 to pass, looked particularly
 disreputable. Having located
 a ship and purchased several
 kimonoos and other things, we
 went back to the Hayward Hotel,
 wrote letters, had lunch and
 at 12.50 P.M. Dickinson met
 us and we started via machine
 for San Diego. Our route was
 via Whittier, Anaheim and
 Santa Ana, through endless
 orange & walnut groves, past
 old San Juan Capistrano and
 then along on near the
 ocean. It was a beautiful
 trip, and we reached the bluff
 at Torrey Pines just as the
 sun set in a blaze of orange,
 while it tinted the sky and sea
 pinkish and purple. We were
 unable to use the road through
 La Jolla, on account of repairs,
 so we had to use a back road
 down Rose Canyon. A Ford

brushed by us in a narrow part of the canyon, tried to edge by a truck in front of us and went down off the road, through a barbed wire fence, and down a steep slope, but none turned on and no one was injured. At a mile below this we passed one, a heavy car, which had run northward, which had one of our fences on its side, but injured no one. We reached San Diego at 7:05 P.M. and were soon most comfortably quartered, and later dined, at the U.S. Grant Hotel.

Terro. Several on lagoon near Hellman.

Brewer's Blackbird. Large flock on meadows betw. San Juan Capistrano and Encinitas. Large full with dark mantle-brown walking along track just below San Juan Capistrano.

~~Not~~


Sept. 11, San Diego, Cal. to Tijuana, 1922. Baja California, Mexico & return.

Film 14

1

We left the hotel at 8 AM. with
Brachyotus-Blasidom and the car and headed
Sara habitat. Arrived Dia Juana. In quite a
Dia Juana, few miles, through National
City, etc. virtually everything
is cultivated, the trees China very

11 stop (m. 1/25)

and eucalyptus, as well as the
~~Craucagya~~ ^{Cedar of Lebanon} . At Chiquero-

2

viota we found a piece of man
looking on virgin land in which in working
Dia Juana for some time, to our good
River bank advantage, as I took Conceptos
from hills ~~construed~~. M. caught a splendid
to N.E. turned back here, which I will

Mexico

4.00 PM.

2.00 PM.

11 stop (m. 1/25)

1/25

endeavor to take some alive to
un. rem. ~~un. rem.~~ From Chaulovista we
can see water, we reached the
wash of the Dia Juana River,
near the little settlement
of San Isidro, which is virtually
a part of the small American
village of Dia Juana. We worked
in the dry wash and the sandy
waste land there, then ran
on a very short distance and
examined a promising hill
slope, largely covered with
a charnise like brush, a species
of Rhus and ^{scattered} cholla, nopal
and yucca. Here we spent two

hours working and secured a
 new Truxaldif, proving a new
 man added to its residents.
 There being no place on the Ameri-
 can side where we could, at a
 decent man, or registered our
 engine number with the American
 customs, quickly passed the
 Mexican authorities after only
 a few words of explanation and
 then crossed the bridge to the
 Mexican town of Tijuana. I
 saw "Mexican" with reservations,
 as it is mainly a set of dance
 halls, cantinas and dens managed
 by Americans, Mexicans and
 Chinese. We had dinner at a
 restaurant, a "Mex-Chinese affair,
 with beer and "topo chico", while
 a resplendent Mexican officer, with
 saber and a polished brass gorget
 about six inches long had a
 conical glass with some friends
 at a bar in back of us. A flat-
 faced Reggie with a conspicuous
 "first national" in her chiffon
 rolled nose tried to drum up
 business, but most of her
 class had gone to San Diego to
 see the circus, which was in

from the day. Eating alone,
 and Hickey & M. beating a quarter
 machine out of \$2.50, but went
 back to the American side and
 worked the hills just north
 of the line and east of the road.
 Two hours were spent there,
 intensively examining and
~~examining~~ beating, the results of
 which were of great value,
 chiefly through secured a male
 (M. W.) and a female (J. R.) of a
Brachyinsara or an insara, in
 any case new to the U. S. and
 probably to science. From Dia
 Juan we ran north, varied with
 a bad fire blow-out, to the
 south-end of the Coronado Beach
 spit, working two places, getting
 a good series of a desirable Trimus.
tropis and a large one of the
 very poorly represented Cero-
cephalus spinosus, for which this
 is the type locality. Driving up
 through the Tent City, we passed
 through wonderfully beautiful
 Coronado Beach and its
 garden and then on the ferry.
 The bay was beautiful as it
 was just about sunset. Hester
 of a number of at least fifty were

grouped about the bay, one of the
old cruisers of the "Colorado"
class, a transport and supply
ship, as well as a number of
auxiliary ones also in harbor.
We put up material in the
morning for nearly three hours.

Willet. A number on beach on
Colorado Beach.

Cal. Brown Pelican. Several
in harbor - close view.

all, like large herring, with
dark mantle and large black
spot at angle of lower mandible.
Numerous seen here - several
seen close up.

Brant's

Commander sp. ? One flying about 15
feet in San Diego Bay.

Sept. 12. San Diego to Campo, San Diego Co.,
1911. California.

Film 13
3
Journal
conditions
at Potrero,
Cal.
Looking N.
2.45 P.M.
11 stop. (cloudy)
1/25

We left San Diego at 8.45 AM,
with all of our belongings and
proceeded by way of East San
Diego, El Cajon, Jamul, Dulzura,
Potrero and Campo. At Jamul
very good sized mountains begin
looking N. to be in evidence all around me,
but on account of a high fog
we could not see them as satis-
facturily as we could have

wished we worked at Yarnut in
 similar environments. Then moving
 along to Huetusa, which is at
 about a thousand feet elevation. Here
 we began to see more evidence,
 and we worked in this environment
 for some time. Leaving Huetusa
 we started for a very considerable
 distance out of the valley of Huetusa
 Creek and then dropped down
 into another valley, then again
 up a far longer grade to Potrero
 which is at about 2500 feet. At
 Potrero we lunched and also
 worked. Here the Chamisa (Adenostoma
canadense) put in the appearance
 and we spent quite a little time
 in it, with a Morse as return.
 From Potrero it is eight miles to
 Campo and we worked along this
 section at several points, reaching
 Campo about 4.30 P.M. We were
 soon installed at the little hotel
 and had a filling supper. Campo
 is just a few houses and a store
 but it is on the r.r. (S.D.&A.) and
 is about 1/4 mile from the Mexican
 line.

Brown's Pelicanid Enormous flock
 near San Diego.

June 10.

Reynolds, Black. See near
Hesperia.

Cal.

Dark Thrasher. See. Common
at Camps Creek at Chicago
Turkey Buzzard. Several
trails.

Fern. Rough leg. One, in mountain
plumage, flew just in front
of the machine near Chicago.
Feathering will soon.

Sept. 13, Camps to Hesperia from Hesperia
1922 San Diego Co., Cal.

We were up about 6.45 after a
splendid night. Sleep and
thorax after breakfast we start
north, bound for the vicinity
of Hesperia. For first, however,
worked near Camps for nearly
two hours, in chance, rabbit
trails, under oaks, sandy wash and
gravelly (granite fragments) slopes.
Remained northward on gradually
limited to a low grade and then
dropped down into another valley,
one of the tributaries of Cottonwood
Creek, up this to Buchanan
Springs, where we struck the
main San Diego-Imperial Valley
road. Then we climbed up to

over four thousand feet elevation,
 at the junction of the road going
 east into the Redwood Mts, then
 down again in a succession of
 blind curves, but fortunately with a
 very good road. At Guadalupe, at
 the east foot of Guadalupe Mts. we
 reached for a good part of an
 hour of the same interesting
 country. Then down in and down
 to the ocean (over 2000 feet). At the
 little place there they directed us
 a mile to the Humboldt Grove
 camp, where we secured excellent
 accommodations, a cottage cabin with
 two beds, room was with an extra
 cot and a satisfactory bathroom
 and toilet. We had a very good
 lunch and then spent several
 hours walking in the neighborhood,
 woods slopes, valley bottoms and
 stream meadows. Morgan had
 secured a gasolene pressure
 lamp at Camps and he tried
 it out in the evening.

California Jay, a number about
 Pleocanes.

Blackbird, little, swimming
 in creek.

California Woodpecker. Several at
Kescance - having
into a flycatcher.

Raven One out in Cottonwood
Creek.

Brewer Blackbird great flock
along Cottonwood Cr.

Redbreast 100 along Creek at
Kescance.

Goldfinch 100 at Kescance.

Sept. 14, 1922. Hiked from Kescance to
Laguna. Laguna Mt., San Diego Co.
Alto. Started at 6:30 AM. Had
62 an early breakfast. Then
Cunares. Reached Laguna Peak via
Laguna, back to the Indian road at
Laguna Mt. camp, then back north past
S. W. Co. Lake, onto ridge, another
Cal. 6000 feet. Camped down into the valley -
Film 13 all across Creek, then up a
#4 grade, until we were looking
down to Laguna Peak. Then
toward the ridge in thick off a line
some things in old road, first through large
Parks from rocks, such as we had been passing
top of Laguna. All morning blue, then into
Peak. pine with much cedar and
11:15 AM. finally some fir (Abies). The
16 stop.
125

to Laguna Junction, where we turned
 off to the east on the narrow gauge
 grade which is the other way for
 reaching the Laguna. The
 road is dangerously narrow, with
 long slopes beneath and many
 sharp, blind curves. In some
 places the road soon became
 very rough and some of it
 was a relief to reach sections
 where it suddenly smoothed out, not
 simply on the edge for one of the
 cars. It was 11.5 miles
 up hill from the junction to
 Laguna Hot Springs and camp
 at an elevation of 6000 feet. We were
 assigned to a tent here, then
 walked off for a half mile or so
 to a point where we could see
 on the Indian Sea and a portion
 of the Imperial Valley. The east
 side of the Laguna which are
 really a plateau culmination
 of the San Jacinto East Range.
 We look there for some little
 elevation, and suggest on a
 smaller scale the drop from
 the Panamint into Death Valley.
 Just a short distance on the
 edge we could see pinyon, a

Very numerous on the far side of the Coast Mts. In the thick-
 of the - side, some chambers and
 - on a peak, at the summit of the
 ridge we had some interesting
 collecting results, nearly nothing.
 In fact, we collected several and
 then passed without until after
 lunch break.

Left at 10:30 a.m. at the house
 - on the - side. First - on the
 - side, south of Laguna Lake,
 in the - side.

col. Therapsid. Many at Laguna.
 - on the - side, at
 - side, on route.

Therapsid - species, from all
 - on the - side - very common
 at Laguna.

Therapsid (with many - on the
 - side - gray back) -
 - on the - side - flying down
 - on the - side - search for things.

Therapsid (very like the - capped)
 - on the - side.

Black-throated Swifts. Along with
 ridge of Laguna Mts.

Spotted Hawk. One near Laguna.

Sept. 15. Laguna Forest, Laguna Hills, Cal.
 1922. Santa Anita, Hot Springs, Tenn.
 Please C. C. Ed.

We were up about 5:50 AM. I
 had breakfast about 6:45 AM. The
 morning was very hot, the sun was in the
 mountains and we imagined it was
 impossible to go on. We agreed to stop
 for a while and wait for a cool
 breeze. We had dinner, which we had
 at 8:00 AM. A Southern lady of color in
 the kitchen. We were off about
 9:00 AM. We took our horse to the
 lower the very bottom. We had
 a good climb and a half mile
 to the main road. Then we
 reached the river to Camp
 at 11:00 AM. We had a good
 lunch. We had a good
 horse and a good. Then we
 the horse that we had. We
 failed to replace the gun. We
 cap above the head. We
 the horse. We had a good
 considerable search and finally
 we found a box which
 completely closed the opening.
 It was now quite warm and we
 were headed eastward toward

descended it steadily,
 increased. The country rolled
 higher and higher. Brown hills,
 some continued with balanced
 domes. Top of them need some
 of the valley's brown in part
 and white. We reached Juarez
 about 12.30 after making a
 run as to west of the source.
 "A regular town" as one of its
 signs said. With several hotels,
 several eating places, hot spring,
 swimming pool and casino.
 We got to Juarez at one of the hotels
 gave lunch and rested until
 about two, then off to the east
 for the afternoon. We worked to
 west about a mile and a half
 in what seems to be a
 valley of Carrizo Creek,
 then about five miles away on a
 ridge, from which one has a
 view down of the latter sea and
 portion of the Imperial Valley. The
 first locality had more Covillea
 than the second, but the latter
 had more Yucca, Cactus and
Colechia. Natural was scarce
 but interesting, and in part
 about three hours work in at

The four localities of small streams
being around 1000 ft. large and
just on the Mexican line about
a mile north of Jacumba. In
the morning, the game was out some
miles on the machine to see
the black lumps.

Chondestes stelleri, *Chondestes*
along Laguna Road
Colombian Goldfinch, *Chondestes*
Chondestes - *Chondestes*
Blackbirds! *Chondestes* about
Camps at Laguna
Red-chapped Flicker. *Chondestes*
Camps
Camps, *Chondestes* *Chondestes*
Spring - *Chondestes*

Sept. 16, Jacumba Hot Springs to
1922, Centro, tropical valley, *Chondestes*
the road is a most delightful
63 night to sleep, a blanket flicker
Ripon very comfortable. We were up at
6:30 and after breakfast started
off to the East. I had seen a
mill, *Chondestes* of the road which was
superior really pleasant riding, in
Cal. Cal. in had travelled only a few

7 miles when the sun began to get
 down on his work. We dropped down the
 Imperial grade starts about 10 miles
 south of the head of the Colorado Hot Springs
 from the a. l. then through Mount San Jacinto
 and at last a steadily rising hill, winding
 up and at last a very rugged
 or the summit at times almost a
 ridge. The road has many kind
 of curves and is of poor
 construction in the more danger-
 ous sections. By the time we
 reached San Jacinto the heat
 was intense, and as we had
 worked in about two hours in
 the sun at three places we ran
 along through the searching
 rays of the day, past Stacey
 and El Centro. We stopped at
 the San Jacinto Hotel, a
 considerable modern building,
 but absolutely unsuited for the
 season, as it lacks verandas
 and has low ceilings. El Centro
 was basking in a temperature
 of 110° in the shade and we
 kept indoors until about 3
 P.M. when we started out to
 find some untroubled valley
 flows. There was never such

than home, and we drove east to Holtville and several miles beyond that from there we gave up tracks. It was nearly 11 when we got back and while getting dinner we figured out our plans for the morning, largely based on our experience of the afternoon. The morning was outrageously hot and the hot of some Lake - was most of the evening.

Round-trip. Saw some
El Centro, Holtville and
Imperial Mts.

Burns Valley. Saw some at
Imperial Mts. and a number
between El Centro & Holtville
one group of trees about an
irrigation gate.

Home. Memories about El
Centro & Holtville

Sept. 17, 1922. El Centro, Imperial Valley, to
Indio, California.

We were up at 4.45 AM. planning
to make an early start for
Indio. After a bit of break-
fast we were off at 5.50

Feb. 14 AM. The night had been infernal,
 absolutely no breeze, in a hotel
 Feb. 15 completely and entirely unfitted
 #1-6. for such a region, and the heat
 P.M. was terrific. When we started
 11 AM there was a little coolness in
 the air, which lasted until
 12:30 PM after noon, then the regular
 warming up began. We traveled
 through Imperial, Brawley and
 McMurcland, all promising
 4:30 PM centers of agricultural region
 but apparently planned on a
 more lavish and cosmopolitan
 (Am. Can. scale than the facts warranted.
 The road was very question-
 able through these communities
 and roads through the farms
 and meandering dirt roads
 by sections & squares between.
 Some miles beyond McMurcland
 we struck the cement
 road, which continued ~~nearly~~
 sixty miles into Indio. It
 led around The Salton Sea
 through a region which for
 nearly forty miles has no
 habitation and almost no
 water. At Cane Spring there
 is a small water hole, of very

unexpressing water and
 some tules. We worked there
 and six miles n.w. of the same
 we tried working in some silt
 and sand flats, with a gravel
 coming, alongside of two large
 yellow sandhills, the only ones
 on the route. We were
 surprised to find Ranunculus
cold, running fern (H & R 1).
 At Basio, which is a little
 settlement near the N.E. end
 of the Salton Sea, with date
 palms, etc. we halted and worked
 for a while, also absorbed two
 splendid lemmings for which
 they are famous. While running
 along the west side of Salton
 we had a splendid breeze
 for the lake, which was very
 pleasing. As soon as we
 got beyond the lake the heat
 was very great, and though
 Eschella and at Indio it was
 roasting. At three in the after-
 noon we went out in a machine
 to the canyon N.W. of the town,
 in the San Bernardino Mts.,
 which has a number of palms
 in it. We had to make the last

mile or so as the road was too sandy, and our flier stuck as it was. We boarded the 9.32 A.M. train and had a hot session in upper bathos bound toward Gila.

Large black hawk with distinct white band on upper surface of tail at base. One at Indio.

Wren. Numerous in Imperial Valley, at Warner & Indio. Gambel's quail. Sev. coveys en route.

Mallard (? ♀) One flying up from irrigation reservoir at Indio. Ducks. Numerous en route. Road-runner. Sev. at Indio & near. Other Cf. Centurus in Broadway.

Sept. 18,
1922

Gila to Ajo, Pima Co., Arizona. We came off at 5.40 A.M. at Ajo, after a short, roasting sleep, all the thrusters because we turned our watches ahead one hour ~~out~~ to take Mountain Time. The sun came up in a pink glory just as we had started during some breakfast at the little railroad eating place at Gila, made of an old

railroad car. The mountains
 went from pink to purplish, then
 gradually into their day color.
 The Arizona desert had asserted
 again, its irresistible appeal,
 which no other can equal. We
 checked our camp but through
 to Phila. & got that off our
 mind, then climbing aboard
 the motor train, a White bus
 running on railroad track
 which seems to take us to
 Ajo. The trip was most interesting.
 Forty-four miles of the
 creosote desert, with palo
 verde, palo fierro, cat-claw,
 mesquite, Sahuaro - cholla, which
 we know so well. We could see
 Crater Mts. to the west and
 Gunsight Mts. to the south. Ajo
 is a modern mine ~~town~~ town
 with surprising accommodations
 and facilities. Its railroad
 station, school, stores, etc. would
 do credit to a place as large
 as Tucson. We were com-
 fortably installed and then
 arranged for a machine to
 carry out our plans for the
 next two days. We were in

out and went on in a nearby
canyon of the Little Ajo Mts.,
where we had the high desert
canyon vegetation of Papago land.
We had splendid luck, as the
notes can testify. After lunch
and session putting up materi-
al we went out again, this
time about six miles out to a
region of more grass, with
broad, gravelly washes. Here
we had even better luck, secured
the first adult *Calamagris*
we taken with exact data in
the U.S., also many other things.
We were back shortly after five
and put up stuff, then to bed
early on account of a hard
day on the morrow.

Junco. Marsh. One in canyon
at Ajo.

Turkey Buzzard. Number
about Ajo.

Junco's detail. One at Ajo.
Jila - Ajo.

Sept. 19,
1924. Ajo to Quitovaquito, and return to
Ajo. No off. Jila, Arizona
Jila, Arizona
Jila, Arizona
Jila, Arizona
Jila, Arizona

- Film #6 We went up about 4:30 AM and we
 left via machine for Quitovaquito
 at 5:20, long before daylight. We
 ran to where we left at the
 Quitovaquito the Little Rio Mts. back of Apo
 day out just breaking as we got
 out in the arm of the Apo Valley
 which lies between the Little Apo
 & Frontal Mts. We had breakfast,
 got coffee from a thermos canister and
 sandwiches, first before reaching
 Frontal Pass. The road is fair up to
 near the frontal Pass, but how much
 on it is very poor. Through frontal
 Apo Range Pass it is very stony and from that
 point it is down a long canyon
 crossing immensurable washes, some
 very large, but all had run the
 night before and the whole country
 had been well denuded. The
 palmarudes and palos fierros were
 very large and luxuriant, as
 feet of the many branched Cereus &
 the candelabra type also abundant.
 In some of the washes some areas
 of a high, vividly green grass known
 as "giguacca" grass, which, however
 did not prove particularly good
 collecting except for *Paropsema*.
 Near Quitovaquito we ran through

galathea
 gallata

a group of low hills known as the
 Huicholaguito Hills, around one which
 bears a boundary monument, the
 road circling back to Sonora for a few
 hundred yards, then turning
 back into Arizona to the springs and
 tanks of Huicholaguito. The springs
 are very good, coming out of solid
 rock and the tank was then filled
 to overflowing. Huicholaguito did
 not prove to be as rich a locality as
 Ajo, but we got at least one species
 known before known in the U. S.
 There was also interest. We headed
 back about 11.00 AM. and worked
 in the Huicholaguito Hills, several
 localities along the west side of the
 Sierra Chagga and in former
 Sonora. After leaving Parker Pass
 the view to the east across the
 Ajo Valley to the big Ajo range
 was magnificent, with White-
 Mountain Peak sticking up there.
 Some viewpoint and the big Mts.
 We came back at 3.15 PM.
 and then we had to get as much
 done on our day's catch as possible
 before leaving at 5.45 PM. We managed
 to just get everything safe, and
 boarded the motor to run back

to Jila. A heavy storm had
 worked up over the country we had
 traversed earlier in the day, and
 before we reached Jila we had to
 contend with low rain squalls and
 went through a terrific wind
 storm, which tore loose one ear of
 corn on one side. Within a few hours
 of this time I had developed a
 splendid cold in my head,
 which may have been due to the
 dust bath. Arriving at Jila
 we rushed through a bit of
 dinner and boarded the
 train at 8:11 P.M.
 getting into duress at 11:45.
 We were soon installed in the
 Santa Rita and went to sleep.

Smith's Diary. About half a dozen
 crabs, those seen early in the
 morning very large and
 spread over a great extent of
 ground.

Nov. Numerous at Quitovaquito
 Ran. (smaller pool, white-necked)
 2 flying birds. Ago + Jila.

Sept. 20.
1922.

Tucuman to Nogales, Argentina.
After a good breakfast at the hotel we attended to a number of little things, then boarded the 11:40 A.M. train for Nogales, where we arrived at 1 P.M. The country between was about as I expected, mainly to Catamarca, that is following along the relatively little run of better, though not cultivated Santa Cruz valley. From Catamarca to Nogales, however, it is uphill work, a steady climb up a steep grade. Nogales is a much more up-to-date and interesting town than we had expected to find it. The two railway stations are on opposite sides of the famous "International Street", but down the middle of this street runs a high concrete wall once and but two custom passages are open in Nogales. We were safely installed at the "Hotel Bernhardt" in comfortable rooms, had arranged for our machine and gotten some lunch, he went out the "Patagonia Road", ascending out over high grass hills with oaks in the depressions, and then down along the beautiful

bottom land of the Santa Cruz
River, with its splendid red
cottonwoods. We worked both on
the high ridges and along the
river bottom, also in mesquite
park country at the foot of the
hills on the river side. It was
extremely rich for us and we
took back a very large haul which
kept us going until after dinner
putting it up. I had a miserable
cold (and ~~was~~ rather indisposed,
so I was anything but comfortable
although I plunged away until
the job was done.

Aphelocoma Jay. In cottonwoods
along Santa Cruz River near
Nojales.

Sept. 21. Nojales to Alto Blanco Mts -
1922. Arizona.

Film 16
6
General
view to W.
in Uro
Blanco Mts.
I was up shortly before seven.
I was feeling extremely weak,
because of adjustment to my
cold the stomach upset, which
had started in at Indio, had
caused me to eat relatively
little for some days. However, I
ventured a breakfast of some

Feb 17

#1-3

Scrambled eggs and coffee. Mr. Nelson left the hotel in the machine about 8 AM, and drove north on the

— Success road for some little distance then turned off to the west, running through country becoming more and more rugged, and higher, irregularly covered with oak groves, and with many jagged peaks and pinnacles overhanging the surface below. The road is a good road, as a good part of our route is in the Coronado National Forest, and in some sections the blind curves are numerous & sharp. We worked at three points: The first at about $\frac{1}{3}$ of the distance toward and some thousand feet lower than, the second, which was the farthest point reached, about 25 miles from Nogales, and the third, about 40 miles east of the extreme point reached and higher. From the third locality Morgan climbed to peaks of the range a thousand or more feet above the road. The results were excellent, but particularly good at the third point, where we

took a series of a Pericoma, the first for the United States, a strikingly green & red species, while high up Morgan took the previously unknown species of Procerophora from. I was feeling somewhat better but work was rather hard, and on our return to ~~El Estero~~ ^{Nogales} I had to work to doctor in evening. Late in the afternoon we shipped a box of specimens home. And with Smith our driver, we had dinner at "The Cafe" in Nogales, Sonora. I managed to hold down the best meal I have eaten for days. We worked until midnight putting up material.

Reptiles common. Mt. are on top of Red-shafted Flicker. One along stream bed.

Rock Wren. Numerous in the Blanca Mts.

Myiarchus or yellow-bellied Tyrannus. A number on route.

Sept. 22, 1922. Nogales to Patagonia Mountains, Arizona and return.

Film 17
#4
Views in
Patagonia
Mts.

We left the hotel at 8 AM. and

Film 17
5

From Patagonia into
on Santa Cruz
Valley.
Nozales.

traveled on the Patagonia Road
as far as we went in the 20th,
except that we did not turn off
and run down on the river
flat, but continued across the
river, climbing the hills on
the far side. From there on it
was a regularly rising road
to the foot of the Patagonia
Range Mountains. The range
is a beautiful one, with the
north face slopes of the canyons
solidly covered with oak, while
the south facing slopes are more
grassy, with scattered or no
trees at all. We worked at
about five stations, the upper
one as high as the road went,
and to get there the machine
had to follow a real mountain
grade for quite a distance.
When we reached the top of one
of the ridges for the point
the machine stopped, but
found virtually no change
from the point on the road.
We were back in Nozales
shortly after three and had
all of our material taken
care before getting dinner.

Turkey Buzzards. *vicinorum*.
 Raven. One, seen about six
 m. from Nogales.

Red-shafted Flicker. One near
 Santa Cruz River.

Sparrow Hawk. Several

Sept. 23, 1922. Nogales to Naco, Cochise Co.,
 Arizona

Sept. 17
 # 6
 Hills at
 Ustom,
 Arizona
 We were up at 5:45 AM. Had
 breakfast and were ready to
 start on the motor for Tucson
 before it had had time to
 be loaded into the station. The army
 dirigible C 2, which had arrived
 the afternoon before, on its flight
 from Langley Field to California,
 had just taken the air, and
 it made a circle down and
 over Nogales. Soon after, then came
 back and headed off toward
 Yuma, its next landing
 place. The motor left at 7.00
 and after leaving the Tucson
 line at Catalina our route
 followed up a beautiful tributary
 of the Santa Cruz, with
 fine large cottonwoods, rich
 grass and wild flowers,
 part Patagonia and Trent.

It then emerged on high rolling
 grassy plains to the north
 of the Huastecas, between these
 mountains and the Mustang
 Range. The drop on the east
 side was down the Balconare
 Creek, to the San Pedro at
 Fairbank. Very little work at
 Fairbank demonstrated that it was
 not a locality worthy of extended
 mining, so after lunch we boarded
 the "Californian" and ran on
 about forty miles to Naco. Naco
 is a rather pitiful American
 town, pretty well eclipsed by
 the sufficiently well-known
 Mexican Naco immediately over
 the wire-fence. We soon secured
 a machine and were installed
 in a hotel, built partly of adobe.
 We worked first about a mile
 east of town in a fine piece of
 irrigated land within a few
 yards of the Mexican line, which
 here is without a fence, but
 with a road on each side. Most
 of our work was done four
 miles to the east, on and
 about some hills just south of
 the P.R. junction of Colima.

These limestone hills run north
on the line, but the northern
section is the highest part.
An area of black brush on the
north slope interested me
much, also some grassland
which was quite foreign to
the other features of the region.
I put up material
until after ten o'clock and
then returned in.

Sparrow Hawk. One like Calabazas
Solidly black birds with no brown
heads (Mex. H. hawk). Several
near Nogales along river.

Turkey Vulture. Numerous between
Nogales & Fairbairn.

Roadrunner. One ditto.

Myiarchus, numerous like ditto.

Meadow Lark. One near Calabazas.

Ariz. Woodp. One near Patagonia.

Calamospiza. Several large
flocks about Naco.

Sept. 24, 1922. Naco to Mule Pass, return
to Naco & then to Douglas,

Filed 18 Arizona.

#1 I had a splendid sleep, but
Morgan had a terrible expe-
rience with mosquitos. After

Looking down
Doubtless
Canyon, from
Summit of Mule
Pass, Mule Mts.

a plain but wholesome breakfast
 we left in the machine at 8 AM.
 headed for the Mule Mts and
 the country above Bisbee. We
 stopped first at Alouha, at
 the foot of the mountains and
 worked profitably for some time
 on the hill slopes. Morgan got a
 bad crack with scotello here,
 which nearly paralyzed his
 right hand. Going up hill we
 passed through Bisbee, which
 is a most attractive sort of
 mining town, we climbed by
 the main road to Mule Pass,
 at 6000 feet. Here we left the
 machine for several hours,
 Morgan going up a 1200 foot
 peak to the south, while I
 worked up to the north to
 a flat called "Juniper Flat",
 at 7250 feet. The view from
 Juniper Flat was quite
 extensive to the north and
 east. After eating lunch
 at the car, we returned
 through Bisbee to Alouha,
 where we worked again for
 a while. Running back to
 Naco we picked up a piece.

of Tamias on the edge of
 town and then ran out a
 short distance to the first
 locality visited by us yester-
 day, to get an addition to our
 series of Trimerotropis melan-
optera, which we did. Back
 at the hotel at 2.45 we packed
 & prepared material until
 time to go to the train. We
 left Naco at 5.50 and were in
 Ahuacatlan about seven. After
 getting comfortably settled
 at the "Gadadeut", we secured
 a good lunch, finished our
 material & went to bed.

Aphelocoma Jay. with approximate
 blue in ♂, gray in ♀. Seen
 on top of Mule Mts at
 7200 feet. M.H.
Lark Bunting. Several flocks
 near Naco.
Band-tailed Pigeon. Flock
 of 10 on way up - 6 on way
 down high peak of Mule Mts.
 M.H. 7000 feet.
Raven. One Mts. Naco &
 Don Luis.

Sept 21. Houghton to San Bernardino
Ranch, Arizona, and return.

We left the hotel at 8.00 AM.
with a driver and machine,
headed due east for San
Bernardino Ranch. To the east
of Houghton we passed the large
Army camp established here some
years ago, and at which a
considerable detachment of
cavalry is still stationed. Then
the road led me a round in the
valleys. Low Perilla Mts. which
separate the Sulphur Springs
Valley, in which lies Houghton,
from the San Bernardino Valley,
which latter is separated by low
hills from the San Simon Valley
to the north. The San Bernardino
Valley extends southward into
the Yuma Basin of Mexico. From
the Perillas, where we spent the
latter part of a profitable hour,
we dropped down into San Ber-
nardino Valley and after some
miles reached the ranch. Here
are many fine cottonwoods,
good springs, great quantities of
sacaton grass and also of
cactus wood. We worked here for

some time later when Hela
plus the same, which we were
 located and secured in some
 way. From this point we moved
 to the near beach with a
 coming of Claw fragments
 and very rough business. Some
 black butch and creosote
 butch were associated, but no
Recountable, Genus or
Birtellus were found. We were
 back in Hong Kong at 5.30 and
 worked until 11 PM putting
 up a large haul.

Turkey Buzzard, female
 Quail sp. One some distance
 by the side of Perilla Hill
 Brown Blackbird, One large
 flock at the same distance.

Sept. 26, ¹⁹²² Hong Kong, to Hachita, New Mexico.
 We left the boat at 8 AM.
 in the same machine we used
 yesterday. We left for the north
 in Hong Kong in the Sulphur Spring
 Valley, collecting in two con-
 ditions, one an open valley flat
 the other about a deep whole which

is the valley drainage channel,
 the cutts show cut face, although
 we saw some the first Arizona
 record of *Desmodopanax*. We
 were back at the hotel where
 dinner, put up the day's catch,
 had lunch and boarded the
 2.30 P.M. train for Hatchita,
 New Mexico. The track climbs
 through a low pass in the Perilla
 Mts. then down into the San
 Juan Valley, following this deaper
 valley N.E. through a range of
 hills at the north end of the
 Granddags range and then
 across the valley the low Plains.
 Then up through more hills, which
 are probably the southern extension
 of the Granddags. The valley in which
 the town of Hatchita is situated.
 Arrangements were soon made
 for supper and a machine
 driven to take us to the Hatchita
 Grande in the morning. After
 a substantial dinner we
 chatted for some time with Dr.
 Botanical Survey, who was
 named Anderson, a most
 interesting fellow, apparently
 a man of the naturalist bent.

Golden Eagle. One or two
 Great Horned Owls and
 Hachita.

Common Hawk. One flying
 same points.

Bank sp? Platy, can above
 with faint yellowish on white
 below. Sev. flying. between
 same points.

Bank Swallow. Several
 flocks at Hachita
 here. Sev. batches between
 Hachita - Hachita

Sept. 27, 1922. Hachita to Hachita grande
 Mts., New Mexico and return
 Film 18 and into El Paso, Texas.
 # 2-6 In car up at 5:30, had break-
 fast a few minutes after
 leaving Hachita six and we off before dawn
 for the Hachita grande Mts.
 We ran due south down the Hachita
 valley for nearly twenty miles,
 then climbed a draw between
 the little Hachita and the
 Hachita grande, then south
 on Pecos Valley to a ranch
 at the base of a large west
 facing canyon. About ten
 miles south of Hachita we

Arim shot a coyote with his .30-40,
 making a fine long ~~shot~~ shot,
 and getting him through the shoulder.
 From the ranch in the Playas
 valley we climbed a good part of
 a thousand feet, up a road
 made up of nothing but sharp,
 loose stones in many places,
 to a point in the canyon at
 about 5500 feet elevation. From
 here Morgan struck for higher
 lands, while I worked the
 canyon and surrounding hill
 slopes. Our center was at the
 lower edge of the juniper and
 piñon belt, which became very
 solid on the slopes under the
 nearly vertical walls of Hachita
 Grande Peak, which has a
 cliff face of about 1800 feet.
 At 1.30 we started back, collecting
 at the canyon mouth, then
 straight to Hachita. We packed
 and at 7.50, on an empty late
 we pulled out for El Paso
 and arrived at 10.00 P.M.
 Installed at the Paso del Norte
 we prepared material until
 1.45 AM.

Golden Eagle. Sw. about
 peak. Mtt. 8500 feet.
 Jay (Pine) large flock at
 about 7200 feet on peak (Mtt)
 Hawk Breeding. Numerous
 Horn Numerous.

Sept 28. Left El Paso at 3.05 P.M.
 1922. small horse car in "Golden
 State Limited."

Sept 30. Reached Chicago at
 1922. 9.35 A.M. Left at 12.40
 P.M. in "Broadway Limited."

Oct. 1. Reached North Phila.
 1922. at 8.20 A.M.

Copies given to Dorothy.

Rose + Stone.

Mail (dates are of mailing in Philadelphia and vicinity).

Until Aug. 9 - Evanston, Nevada.

Aug. 10 - 13 - Wells, Nevada.

" 14 - 24 - Bakersfield, Cal.

" 25 - Sept 8 - San Diego, Cal.

Sept. 9 - 16th - El Centro, Cal.

" 17 - 22 - El Paso, Texas.

Emergency addresses (telegraph)

August 16th - Cheyenne, Wyoming.

" 17th - 8th - Laramie, "

" 9th - Medicine Bow, "

" 10 - 11 - Rock Springs, "

" 12 - Green River, "

" 13 - 14 - Evanston, "

" 15 - Ogden, Utah

" 16 - 17 - Wells, Nevada.

" 18 - Reno, Nevada

" 19 - 20 - Alturas, Cal.

" 21 - 22 - Lakeville, Oregon.

" 23 - Wendel, Cal.

" 24 to 26th - Westwood, Cal.

" 27 - ^{Aug. 31} Sept 1 - Coalinga, Cal.

Sept 1 - 4 - Bakersfield, Cal.

Sept 5 - 9 (as possibly 11) - Searles, Cal.

Sept 10 (as possibly 12) - 13 - San Diego, Cal.

Sept. 14 - 15 - Campo, Cal.

Sept. 16 - 17 - Jacumba, Cal.

Sept. 18 - 22 - El Centro, Cal.

Sept. 23 - 24 - Gila, Arizona.

Sept. 25 - Osborn, Arizona.

Sept 26 - 27 - Columbus, N. M.

Sept. 28 (at most) El Paso, Texas.

Address for telegraph to "Leading Hotel."

Reunds of drafts

\$10

A 1,872,784

A 1,872,785

A 1,872,786

A 1,872,787

\$20

B 1,806,167 cashed Phila VIII. 4. 1922

B 1,806,168

B 1,806,169

B 1,806,180

B 1,806,181

B 1,806,182

B 1,806,183

B 1,806,184

\$30

C 771,691

C 771,692

C 771,693

C 771,694

C 771,695

C 771,696

C 771,697

C 771,700 cashed Laramie, Wyo. VIII. 8. 1922.

Coll. 739

Rehn, J. A. G. Field Journals

1922

List of photographs taken during expedition
found between pages 52 and 53 of
Volume # 11.

A. Telescope Peak in Reno mts looking E.
from top of Pyramid Valley, showing
mouth of Wild River Canyon. minus 2000 feet.

B Wild River Canyon 3 miles below Wild
River Spring.

C Up Wild River Canyon to Spring (Wild River
Spring 3600 feet)

D. Down Canyon from above point.

E. Down Wild River Canyon 3500 feet, looking
due W. Sierra in background.

F. View at 6000 feet from above.

G. View from 6000 feet from above.

676½

